



Y-12 acts on energy secretary's security initiatives;  
Diskless technology enhances security;  
Eye-scanning device focuses on restricting facility access

## Security

### Y-12 LEADS WAY ON SECURITY INITIATIVES

Y-12 is taking the lead in making the changes Secretary of Energy Spencer Abraham outlined in May 2004 when he announced a set of sweeping new initiatives to improve security at U.S. Department of Energy sites across the country.

- Y-12 is building a new Highly Enriched Uranium Materials Facility, which will consolidate and protect the nation's most sensitive nuclear material.
- Y-12 has designed and is aggressively implementing diskless classified computing to allow sensitive functions to be performed in a more secure environment.
- Y-12 has implemented the No More Surprises Program to allow employees to air concerns without fear. This program has already benefited Y-12 by opening the lines of communication between employees, supervisors and senior management.
- Y-12 is implementing various technological security measures to supplement and complement the vigilance of the security police officers.



NNSA Administrator Linton Brooks (third from right) visited Y-12 in September and was briefed on Y-12's response to new security initiatives.

### DISKLESS TECHNOLOGIES AGGRESSIVELY IMPLEMENTED

Y-12 is aggressively implementing diskless technology for classified computing activities. This approach frees the individual user of the need to use or create classified removable media to perform work.

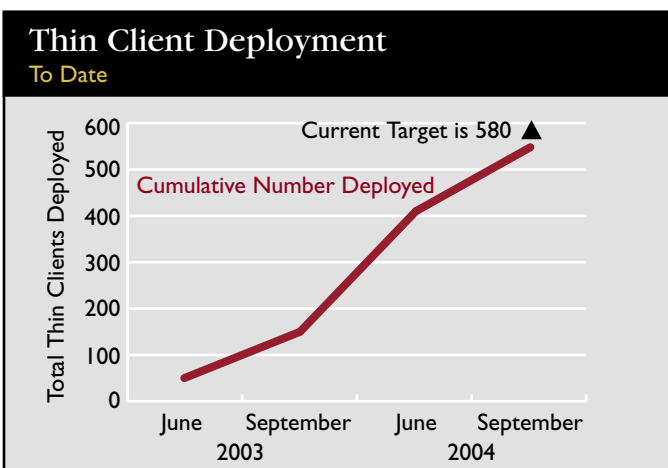
The nature of computing activities varies widely across Y-12, as in any other manufacturing enterprise; however, the protection afforded the data and information used and generated here must be much higher.

Making use of recent developments in server and

network capabilities and technologies, Y-12 has designed

two secure diskless configurations called thin and thick clients to address the needs of various users. Deployment of thin clients should reach 100% of the current target in early FY 2005. Thick client deployment may begin later in the year once final testing is complete and all approvals are obtained.

This approach greatly enhances computing and information security by controlling or removing a user's ability to compromise information on classified removable electronic media. These enhancements are achieved by providing users with closely controlled, secure, remote, virtual drives at classified computing centers.



Y-12 has deployed 552 thin client workstations, almost 95% of its current target of 580; however, new uses for this diskless technology continue to be identified, pushing the target higher.



Beth Maples of Manufacturing, scans her iris into the Y-12 Iris Recognition System.

### KEEPING AN EYE FOCUSED ON SECURITY

Ever think that the high-tech gadgets in movies are light-years away from the

real world? Think again. Iris recognition technology is being tested at Y-12 to control access to facilities.

Iris recognition technology identifies people by the patterns of the iris, the

colored part of the eye. Like a fingerprint, the iris is unique to each individual.

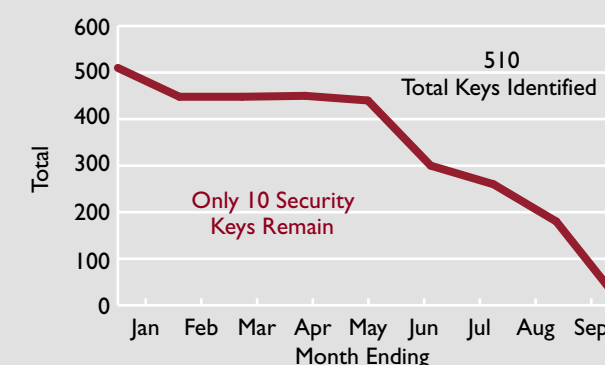
By using a series of high-resolution digital photos, the recognition system creates a code of 240 separate data points. The likelihood of two irises having the same code is almost impossible—1 in  $10^{78}$ .

Is there a way to fool the system—say, gain entry into a building by using a photograph of an eye? No, says Bill Leinart, the systems engineer who acquired the technology for Y-12. "The pupil of an eye is constantly expanding and contracting, so a photograph won't work."

Security at Y-12 is not static. With the implementation of new technologies, Y-12's security operations are smarter than ever.

### Reduction in Security Keys

In 2004



Y-12 has reduced the number of security keys in use by 98%, implementing alternative locking devices and reducing the number of containers with classified materials.

## FACES OF Y-12

Peter White

Manager, Physical Security

The next generation will be comfortable with technology and know how to apply it to the challenges they face at Y-12. Its members will need to look beyond personal interests to address national needs and be patient as they work towards their goals and objectives. The Cold War was not won quickly nor without sacrifice, and they will likely face even more diverse threats than did our generation.

